

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A system for remotely controlling operation of at least one device over a communications network, wherein the network includes first and second network sides and means for controlling access between the first and second sides, the system comprising:

a first controller connected to the network on the first network side for receiving a ~~plurality of~~ device control messages from a control station; and

a second controller connected to the network on the second network side, for receiving the device control messages from the first controller and controlling the operation of at least one device in response thereto;

means for the second controller to ~~initiating and maintaining~~ a connection between the first controller and the second controller;

wherein the first controller is configured to send the ~~plurality of~~ device control messages to the second controller while the connection remains open between the first controller and the second controller.

2. (Original) A system according to claim 1, wherein the second controller initiates the connection by sending a connection request to the first controller.

3. (Previously Presented) A system according to claim 1, wherein the access control means is configured to prevent connection requests from the first controller from reaching the second controller.

4. (Previously Presented) A system according to claim 1, wherein the system is configured (a) to maintain a connection between the first and second controllers following receipt of the connection request from the second controller at the first controller, and (b) to permit the first controller to send the device control messages to the second controller when said messages are received at the first controller.

5. (Previously Presented) A system according to claim 4, wherein the device control messages are sent in an encrypted form.

6. (Previously Presented) A system according to claim 1, wherein the first and second controllers are located at a site remote from the control station.

7. (Previously Presented) A system according to claim 6, wherein a communications path between the control station and the remote site comprises a wide area network.

8. (Original) A system according to claim 7, comprising further access control means between the wide area network and the first controller.

9. (Previously Presented) A system according to claim 8, wherein the means for controlling access and the further access control means comprises a firewall.

10. (Previously Presented) A system according to claim 8, wherein (a) the means for controlling access control means and (b) the further access control means respectively provide inner and outer firewalls and the first controller is connected in a demilitarized zone between the inner and outer firewalls.

11. (Previously Presented) A system according to claim 1, wherein the first and second controllers communicate over Transport Control Protocol (TCP) port 1073.

12. (Previously Presented) A system according to claim 1, wherein the control station is configured to receive information relating to an event occurring at the at least one device via the first and second controllers.

13. (Original) A system according to claim 12, wherein the control station generates a device control message in response to the received information.

14. (Previously Presented) A system according to claim 12, wherein the control station initiates a connection to the first controller to enable it to receive said information from the first controller.

15. (Previously Presented) A system according to claim 12, wherein the first controller initiates a connection to the control station to enable the control station to receive said information from the first controller.

16. (Original) A system according to claim 15, wherein the first controller is triggered to initiate the connection to the control station after initiation of the connection to the first controller by the second controller.

17. (Previously Presented) A system according to claim 1, wherein the second controller includes at least one device driver for controlling said at least one or more devices.

18. (Currently Amended) A method of remotely controlling the operation of at least one or more device over a communications network, wherein the network includes first and second network sides and means for controlling access between the first and second sides, the method comprising:

initiating and maintaining a connection between a first controller connected to the network on the first network side and a second controller connected to the network on the second network side, the connection being maintained by the second controller; and

~~sending a plurality of device control messages from a control station to the first controller~~
and then from the first controller to the second controller while the connection remains open between the first controller and the second controller, the second controller controlling the operation of the at least one or more device in response to the device control messages received by the second controller.

19. (Currently Amended) A system for remotely monitoring operation of at least one device over a communications network, wherein the network includes first and second network sides and means for controlling access between the first and second sides, the system comprising:

a monitor station connected to the network on the first network side for receiving information concerning said at least one device;

a first controller connected to the network on the ~~second~~first network side for receiving said information and sending said information to the monitor station;

a ~~second~~ second controller for monitoring operations of the at least one device and sending said information to the first controller; and

means for the monitor station to ~~establishing~~ and ~~maintaining~~ a connection between the first controller and the monitor station;

wherein the first controller is configured to send said information to the monitor station while the connection remains open between the first controller and the monitor station.

20. (Currently Amended) A system according to claim 19, wherein the system is configured to ~~(a) maintain a connection between the monitor station and the first controller following receipt of the connection request from the monitor station at the first controller, and (b)~~ to permit the first controller to send information received at the first controller to the monitor station without requesting a new connection to the monitor station.

21. (Previously Presented) A system according to claim 19, wherein the monitor station generates device control messages in response to the received information.

22. (Original) A system according to claim 21, wherein the device control messages are sent to the devices via the first and second controllers.

23. (Previously Presented) A system according to claim 19, wherein the second controller is connected to the network on the second network side.

24. (Previously Presented) A system according to claim 19, wherein the first controller is located at a site local to the monitor station and the second controller is located at a site remote from the monitor station.

25. (Previously Presented) A system according to claim 24, wherein a communications path between the monitor station and the remote site comprises a wide area network.

26. (Previously Presented) A system according to claim 25, wherein the first controller is located in a demilitarized zone between a first firewall which separates the first controller from the monitor station and a second firewall which separates the first controller from the wide area network.

27. (Original) A system according to claim 26, further comprising a third firewall separating the second controller from the wide area network.

28. (Original) A system according to claim 27, wherein the third firewall is configured not to permit inbound connection requests to the second controller.

29. (Previously Presented) A system according to claim 19, wherein the monitor station and the first controller communicate over Transport Control Protocol (TCP) port 1073.

30. (Currently Amended) A method of remotely monitoring operations of at least one device over a communications network, wherein the network includes first and second network sides and means for controlling access between the first and second sides, the method comprising:

initiating and maintaining a connection between a first controller connected to the network on the ~~second~~ first network side and a monitor station connected to the network on the first network side, the connection being maintained by the monitor station; and

sending event information relating to operation of the at least one device from a second controller monitoring operations of the at least one device, to the first controller and then from the first controller to the monitor station while the connection remains open between the first controller and the monitor station.

31. (Previously Presented) A method according to claim 30, further comprising:
generating device control messages for controlling the devices in response to the received event information.

32. (Previously Presented) A method as in claim 30
wherein the first and second network sides are separated by a firewall and the first controller is located behind said firewall and the second controller is located outside the firewall;

wherein the initiating step comprises utilizing only one control message port through the firewall, by opening and for at least sometime thereafter holding open said one control message port in said firewall while the first controller connects with a second controller using a first messaging protocol;

wherein the sending step comprises exchanging device control messages through said opened port between said first and second controllers using said first messaging protocol for controlling and for monitoring the devices; and

wherein said method further comprises using said first controller to control said devices using respectively corresponding signaling protocols in response to control messages from said second controller passing through said opened port.

33. (New) A system according to claim 1, wherein:

the second controller and the at least one device are located on one side of a firewall; and
the first controller is located on the other side of the firewall.

34. (New) A method according to claim 18, wherein:

the second controller and the at least one device are located on one side of a firewall; and
the first controller and the monitor station are located on the other side of the firewall.

35. (New) A system according to claim 19, wherein:

the monitor station is located on one side of a firewall, and the first controller is located on the other side of the firewall.

36. (New) A method according to claim 30, wherein:

the monitor station is located on one side of a firewall, and the first controller is located on the other side of the firewall.

37. (New) A system according to claim 1, wherein the second controller maintains the connection between the first controller and the second controller by reestablishing the connection if lost without requiring the first controller to request a connection to the second controller.

38. (New) A method according to claim 18, wherein the second controller maintains the connection between the first controller and the second controller by reestablishing the connection if lost without requiring the first controller to request a connection to the second controller.

39. (New) A system according to claim 19, wherein the monitor station maintains the connection between the first controller and the monitor station by reestablishing the connection if lost without requiring the first controller to request a connection to the monitor station.

40. (New) A method according to claim 30, wherein the monitor station maintains the connection between the first controller and the monitor station by reestablishing the connection if lost without requiring the first controller to request a connection to the monitor station.